

The EpiNotes Newsletter



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Congenital Syphilis is on the Rise in North Carolina

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Communicable Disease Branch

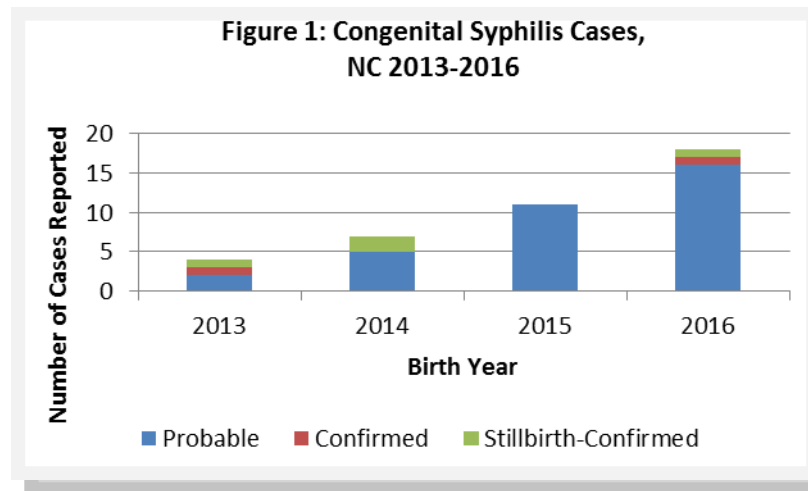
After more than a decade of declining rates, congenital syphilis infections are on the rise in North Carolina (N.C.). Since 2013, the number of congenital syphilis cases reported in North Carolina has increased by more than four-fold (Figure 1).

Congenital syphilis (CS) occurs when the bacterium that causes syphilis, *Treponema pallidum*, is transmitted from an infected pregnant woman to her unborn child. The risk of transplacental infection varies by maternal stage of disease and gestational age of the fetus. The highest risk for mother-to-child transmission is during the second half of pregnancy and among women in the early stages of infection (primary, secondary and early latent syphilis), (figure 2)¹.

When left untreated, syphilis during pregnancy increases the risk of miscarriage, premature birth, stillbirth and neonatal death². Although symptoms of congenital syphilis infection can be present at birth (early CS), they may not manifest until after 2-years-of-age (late CS). Early CS symptoms include neurologic abnormalities, skeletal deformities, mucocutaneous lesions, hepatosplenomegaly and anemia^{3,4}. Manifestations of late CS

symptoms include interstitial keratitis, hearing loss, and bone and dental abnormalities³.

The increase in CS cases is consistent with the overall increase in N.C.'s syphilis rates. However, CS infection is preventable if the mother's infection is identified early.



Furthermore, severe medical sequelae can be mitigated in infected neonates if they are diagnosed and treated at birth. Therefore, failure to follow recommended screening and treatment guidelines for CS prevention also contributed to the increase in CS cases.

To identify missed opportunities by public health and health care systems that may have played a role in the CS increase, we performed

a retrospective review of all cases reported between Jan. 1, 2013 and Dec. 31, 2016. Data were extracted from the North Carolina Electronic Disease Surveillance System (N.C. EDSS), a database that contains the records of all individuals reported with syphilis in the state. Maternal demographics, prenatal syphilis screening practices, treatment timeframes and partner notification activities were reviewed for mothers of infants meeting the 2014 probable or confirmed congenital syphilis surveillance case definition⁵. We also characterized the pregnancy outcomes of CS mothers and assessed whether exposed infants received the recommended clinical evaluation for CS infection.

Between Jan. 1, 2013 and Dec. 31, 2016, 225 women were diagnosed with syphilis during pregnancy or at delivery. CS was prevented in 187 cases (83%). Thirty-eight (17%) of these women were CS mothers. CS mothers were more frequently black/African-American and unmarried compared to non-CS mothers. CS mothers were also more likely to be diagnosed with early syphilis than non-CS mothers (84% versus 46%).

CS Mothers and Prenatal Care

The majority of CS mothers received some

prenatal care (N=30, 79%); eight (21%) received no prenatal care and were diagnosed with syphilis at delivery. CS mothers who had received prenatal care initiated that care throughout the prenatal period; 63 percent (19/30) entered care in the first trimester, 30 percent (9/30) in the second trimester and seven percent (2/30) in the third trimester of pregnancy. Eighty-four percent (16/19) of CS mothers who had received prenatal care during the first trimester were appropriately screened for syphilis at their first care visit and 75 percent (12/16) of those women had no serologic evidence of syphilis infection, indicating infection occurred later in pregnancy. Of the 19 CS mothers who initiated prenatal care during the first trimester, only 16 percent (3/19) received full syphilis screening in pregnancy per NC Administrative Code 10A NCAC 41A .0204, which requires screenings at the 1) first prenatal visit, 2) between 28-30 weeks gestation and 3) at delivery.

Pregnant women diagnosed with syphilis should be treated for the stage of their infection with Penicillin G as soon as possible. All CS mothers were treated with the appropriate antibiotic regimen. The median time to treatment of CS mothers was three days; more than one quarter (29%) of CS mothers were not treated until a week or more after the positive serologic result.

Partner Notification Activities

Partner notification services (PNS) is the backbone of public health syphilis control efforts. The quicker an infected person is brought into treatment, the less time they have to transmit their infection to a sexual partner. It is especially important to rapidly locate and treat all sexual partners of pregnant women to decrease the risk of reinfections. The majority of CS mothers (89%) named at least one sexual partner. However, for 10 CS mothers who did not receive prenatal care or entered care in their third trimester, the late syphilis diagnosis limited the benefit of PNS for CS prevention.

A total of 33 sexual partners were named by 25 CS mothers who entered prenatal care in their first or second trimester of pregnancy. More than three-quarters (79%) of sexual partners were located, tested and treated for syphilis. However, only 38 percent of partners brought to care had serological evidence of syphilis, indicating that the remaining 62 percent were not infected prior to the mother's infection. Therefore, for the majority of mothers, the partner who was the source of their infection remained unidentified.

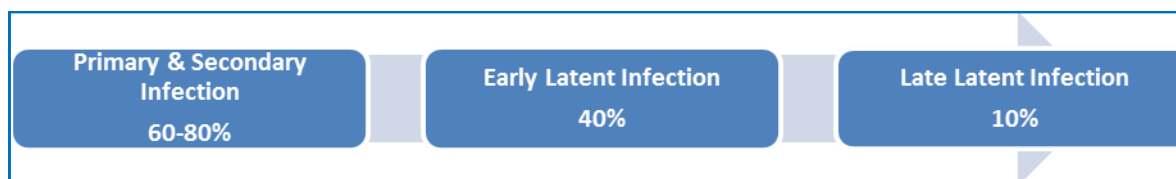
Pregnancy Outcomes and Newborns

There were 39 CS cases associated with the 38 CS mothers during this four-year period. Though premature birth and stillbirths were more commonly observed among CS mothers with no prenatal care (63%), these outcomes were also observed in a third (33%) of infants born to CS mothers who received some form of prenatal care. Newborns of mothers diagnosed with syphilis during pregnancy should be evaluated for signs and symptoms of congenital infection prior to discharge from the hospital. Furthermore, infection can be present in the absence of clinical symptoms and if left

untreated may result in late CS infection. Therefore, all infants born to women with untreated or inadequately treated syphilis during pregnancy should be

empirically treated for CS. Eighty-three percent (29/35) of live born infants had serologic testing for syphilis within 48 hours of birth, 14 percent (5/35) were tested ≥ 72 hours after birth and one infant (3%) did not receive serologic testing. A clinical assessment for signs or symptoms of infection was documented for 30 (86%) live born infants; 27 (90%) of these assessments included cerebrospinal fluid (CSF) testing and 21 (70%) included long bone X-rays. Clinical evidence of syphilis infection was observed in 53 percent of live-born CS infants assessed.

Figure 2: Mother-to-child syphilis transmission risk, by stage of maternal disease



Discussion

The rise in congenital syphilis infections during the past four years is consistent with the observed increase in syphilis incidence in adults. While CS infections were prevented in the majority of pregnant women with syphilis infections, missed screening and treatment opportunities remain. One-fifth of CS infants in this review were born to mothers who had no prenatal care, limiting public health opportunities to prevent mother-to-child syphilis transmission. Even among CS mothers who received prenatal care, we observed low adherence to the 10A NCAC 41A .0204 public health law for syphilis screenings during pregnancy. This may be partially due to a lack of familiarity with N.C.'s administrative codes among clinicians or a perception that their patients are not at risk for syphilis. Complying with this public health law is especially critical given our findings that the majority of CS mothers acquired syphilis during the pregnancy, not prior.

Partnerships among the N.C. Division of Public Health's (N.C. DPH) Epidemiology and Women's and Children's Sections are being developed to support a more comprehensive public health response to CS. Stronger collaborative efforts are also needed between the N.C. DPH and key stakeholders, such as the North Carolina Obstetrical & Gynecologic Society and the North Carolina Medical Board aimed at raising awareness and promoting the importance of N.C.'s syphilis screening requirements among prenatal providers.

Our review also revealed that the source of many of the women's syphilis infections was not identified through partner notification services. This is extremely concerning, as it suggests that women are not naming all their sexual partners. Possible reasons women may not name all sexual partners include an increase in anonymous partners or fear of reprisal from a primary sexual partner if notified of exposure to syphilis. Identifying and treating all male partners of pregnant women with syphilis is crucial to controlling infection and preventing possible reinfection during the pregnancy. Efforts to understand the barriers to full disclosure of sexual partner information among women with syphilis will be important to improving the efficacy of future partner notification services in this population.

The health care system serves as a safety net for infants born to mothers with untreated or inadequately treated syphilis infection. Therefore, it is important that healthcare facilities adhere to the clinical and treatment recommendations for potential CS infants. Additionally, 10A NCAC 41A .0204 mandates that infants not be discharged from the hospital until the syphilis serologic status of the mother is known. This assures that the health care provider has the opportunity to evaluate and treat infected infants as soon as possible following delivery to mitigate the devastating consequences associated with untreated CS infection. Building mechanisms, such as automatic electronic health record

alerts that remind clinicians when to order necessary testing, could help to routinize this practice.

Congenital syphilis is a preventable infection that can result in severe and life-long consequences for both mother and infant. Therefore, every CS infection should be treated as a sentinel event, and a thorough review of each case should be completed to identify whether gaps in health care or public health practices were contributing factors.

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Hospital-Based Epidemiologist (PHE) Program: Expanding Communication among Clinicians, Hospitals and the Public Health System

By Lana Deyneka, MD

The PHE program was born from a gap identified during the October 2001 anthrax attacks in the United States. Robert Stevens was the first victim of the anthrax attacks. He was visiting his daughter in N.C. when he began to feel ill on the last day of his visit. Shortly after returning to his home in Florida, he was diagnosed with inhalational anthrax and died. With an incubation period that is generally two to seven days, the question arose as to whether Mr. Stevens had been exposed to anthrax while in N.C. The FBI and CDC wanted to know if there were other potential anthrax cases in N.C. hospitals. Improved communication and coordination between hospitals and public health proved to be a gap that needed to be urgently addressed.

The proposed solution was the creation of a public health network that would bridge disease surveillance, prevention and control activities between public health and healthcare organizations. It was determined that a liaison had to be hospital-based so he/she would be considered part of hospital staff, yet had to be

funded through public health to ensure necessary public health related activities were conducted.

With increased funding through the public health emergency preparedness (PHEP) cooperative agreement with the Centers for Disease Control and Prevention (CDC), the North Carolina Division of Public Health implemented the PHE program. In 2003, host hospitals were selected with regards to catchment area, bed size, emergency department volume and characteristics of the population served.

The program sought to enhance communication among clinicians, hospitals and the public health system, assist with development of a surveillance method for monitoring and detecting reportable disease infections, and provide education and heighten awareness for diseases of public health importance.

Over a decade later, the PHEs remain integral liaisons between their hospitals and public health in the event of a public health emergency. They also play an important role for the state communicable disease program, ensuring reporting of communicable diseases (CDs), routine and urgent CD control, outbreak management, and case-finding during community wide outbreaks. All seven PHEs have become the official, easily identifiable “public health” figures in their hospital systems and their hospital colleagues routinely contact them regarding any public health-related issues.

PHEs have access to a variety of hospital data systems that would not have been available to public health authorities. Furthermore, CD reporting from hospitals improved after all PHEs were trained in using the North Carolina Electronic Disease Surveillance System (N.C. EDSS). Improvement in communicable disease reporting is consistently described by the local health departments (LHDs) as a benefit of the program: one point of contact for patient information; faster, close to real-time, reporting; and quicker responses to LHD inquiries.

Last year, PHEs identified cases of tetanus, chikungunya, and malaria, and clusters of pertussis, and helped with mumps and influenza outbreak investigations. Likewise, PHEs were responsible for identifying suspected cases of tuberculosis and meningococcal meningitis. During seasonal flu epidemics, PHEs regularly monitor influenza-like illness (ILI) in their facilities, and track the number of flu-associated deaths and number of positive tests for influenza and other respiratory viruses each week. These data assist clinicians and public health officials in the interpretation of influenza and viral pathogen activity in the area. In 2016, PHEs participated in the statewide ocular syphilis investigation, and coordinated collection and submission of Carbapenem-resistant Enterobacteriaceae isolates as part of a sentinel surveillance systems.

The program is an integral component of our statewide communicable disease surveillance and response system.

Mumps Makes a Comeback

By Justin Albertson, MPH and Susan Sullivan, MS, RN-BC

Mumps is an acute viral disease best known for causing swelling of the parotid salivary glands. The mumps virus is spread through contact with infected droplet, saliva or mucus from the mouth, nose, or throat of an infected person. A person with mumps can transmit the virus up to two days before symptoms begin, and up to five days after the beginning of salivary gland swelling. About 30-40 percent of people infected with the mumps virus have no symptoms, yet are contagious. Two doses of the measles-mumps-rubella (MMR) vaccine are currently recommended to reduce the risk of mumps infection. The first dose is recommended for children aged 12-15 months and the second for children aged 4-6 years. However, mumps outbreaks can occur in close-contact settings, despite high vaccine coverage.

Before the U.S. mumps vaccination program began in 1967, about 200,000 cases of mumps were reported each year. Since that time, there has been more than a 99 percent decrease in mumps cases in the United States. However, the number of reported cases of mumps has increased in recent years (Figure

1). Almost 6,000 cases were reported in 2016, and already in 2017, 42 states and the District of Columbia reported mumps infections in 2,570 people. Reported mumps cases in North Carolina follow a similar trend to the United States. From 2010-2015, an average of just five cases of mumps were reported each year. However, 35 cases were reported in 2016, and 12 cases have already been identified in 2017. Although mumps outbreaks still occur among

mented in multiple outbreaks. States which allow personal belief exemptions tend to have the highest numbers of mumps cases (Figure 2, Figure 3).

A major factor contributing to outbreaks is being in a crowded environment, such as attending the same class, playing on the same sports team or living in a dormitory with a person who has mumps. Behaviors like kissing, and sharing eating utensils, cups, lipstick and cigarettes contribute to spreading the virus from one person to another. Because of these risk factors, universities are natural high-risk settings for mumps transmission. In 2015-2017, several outbreaks were reported on university campuses across the United States. The two largest outbreaks were on university campuses in Iowa and Illinois, each involving several hundred students; both held wide-scale vaccination campaigns. In North Carolina, outbreaks have occurred on the campuses of the University of North Carolina-Charlotte and Appalachian State University.

Though most mumps outbreaks occur on college campuses, they can also occur in other populations. There is currently a large outbreak in Arkansas of almost 3,000 cases, with a majority among school-aged children. Throughout the current outbreak, 90 to 95 percent of school-aged children and 30 to 40

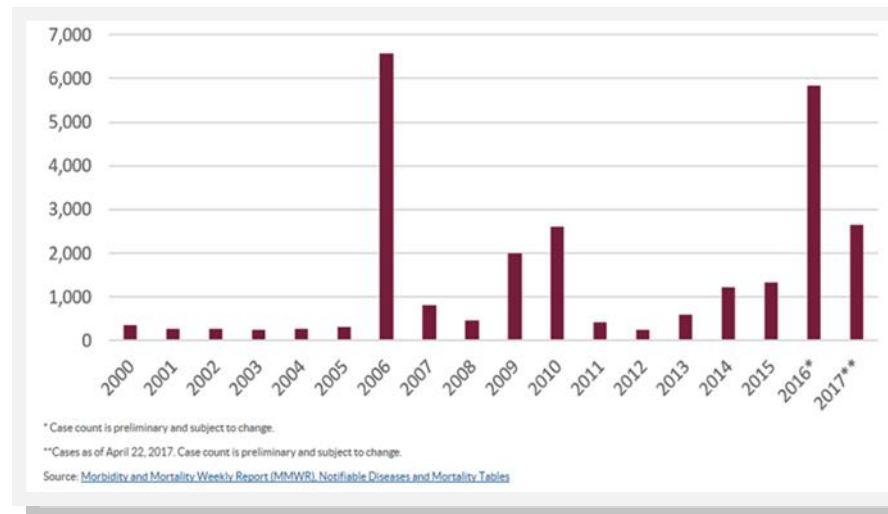


Figure 1: Annual reported mumps cases in the United States, 2000-2017

highly vaccinated populations, high vaccination coverage helps limit the size, duration and spread of mumps outbreaks. It is estimated that mumps herd immunity can be achieved with 88-92 percent coverage; however, in outbreak settings the threshold is likely higher. The role of unvaccinated pockets of individuals contributing to sustained community spread of vaccine preventable disease has been docu-

percent of adults infected with mumps were fully immunized. The Marshallese population in Northwest Arkansas has been particularly hard-hit; about 60 percent of the region's cases have affected people in that community. The outbreak, which began in late August 2016, has now slowed down to just two counties.

All of these outbreaks occurred, despite high two-dose MMR coverage among the affected populations and a majority of mumps cases occurred in persons fully up-to-date on their vaccinations.

CDC, and other state and academic partners are currently researching explanations of sustained mumps transmission in highly vaccinated populations. CDC reports that in outbreaks from 2010-2015, the predominant molecular genotype was G, which is endemic worldwide and has been circulating in the U.S. since 2006. One possible explanation for the recent increase is that the 1967 vaccine strain and currently circulating strains might be mismatched. However, this is unlikely given that sera collected from people shortly after vaccination have been shown to effectively neutralize a wide variety of genetically distinct virus strains. The more likely reason for sustained transmis-

sion among high vaccinated populations is waning of vaccine-induced immunity. Information regarding long-term persistence of

ed by assessing the vaccination status of case-patients and by serologic studies demonstrating a decline in IgG antibody levels over time. In a 20 year follow-up study conducted by the National Public Health Institute in Finland, Davidkin and colleagues found that a seropositivity threshold of 90 person, necessary for preventing mumps virus circulation, was not met eight years after receipt of the second MMR dose. A sufficiently high mumps seropositivity rate was measured only soon after the second MMR dose. In the setting of campus outbreaks, many of the cases are 15 years since last MMR.

One possible solution to help stop sustained mumps outbreaks is to recommend a third dose of MMR vaccine. This could be done by recommending a third dose in outbreak settings, i.e. targeting a third dose to students on a university campus where a mumps outbreak is occurring, to attempt to boost immunity during the outbreak.

Mumps vaccine recommendations are currently being studied and more research is needed to determine the best course of action.

References: <https://www.cdc.gov/mumps/>

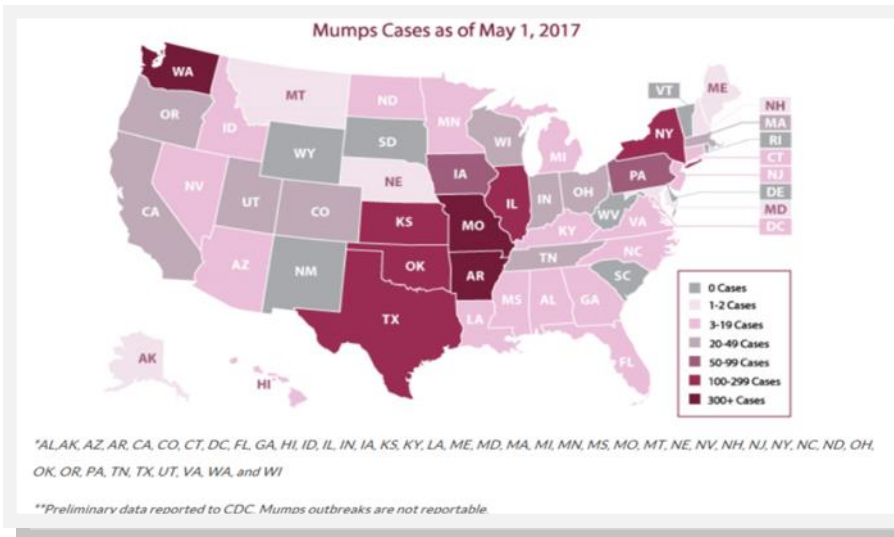


Figure 2: Reported mumps cases by state, Jan. 1 – May 1, 2017

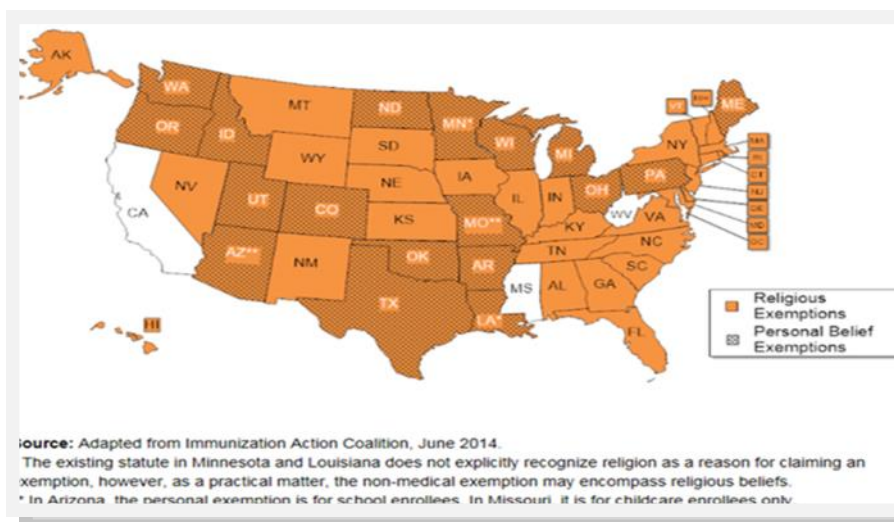


Figure 3: Religious and personal belief vaccination exemptions by state

mumps antibodies after a second dose of MMR vaccination is limited, but evidence for secondary vaccine failure can be demonstrat-

Convergence Website Offers Integrated Climate and Health Data

By Sarah Shaughnessy and Sara J. Smith, MA

Heat waves pose a serious threat to public health. Heat is the number one weather-related killer in the United States! In the Carolinas, we are seeing increasing numbers of high heat and high humidity days, which have resulted in record numbers of people seen in emergency departments for heat-related illness. While increasing numbers of days of high temperatures is certainly a problem, even more concerning are the increasing numbers of evenings in which temperatures remain well into the 70s. It is this combination of high heat days and high night-time temperatures that have the greatest impact on human health.

Until recently, there has been a need for a centralized and streamlined data source to identify and address the public health impact of heat and other extreme climate events on communities in the Carolinas. To fill this gap, the North Carolina Climate and Health Program

(Occupational and Environmental Epidemiology Branch), has partnered with the Carolinas Integrated Sciences and Assessments (CISA) and the Research Hub at the University of North Carolina at Chapel Hill to create Convergence, a website with tools to assess the public health impact of extreme climate events and to identify vulnerable populations who may benefit from outreach and intervention.

Along with heat, the website includes information about the impacts from drought, hurricanes, severe weather and winter storms. Convergence includes tools, such as the Heat-Health Vulnerability Tool (HHVT,

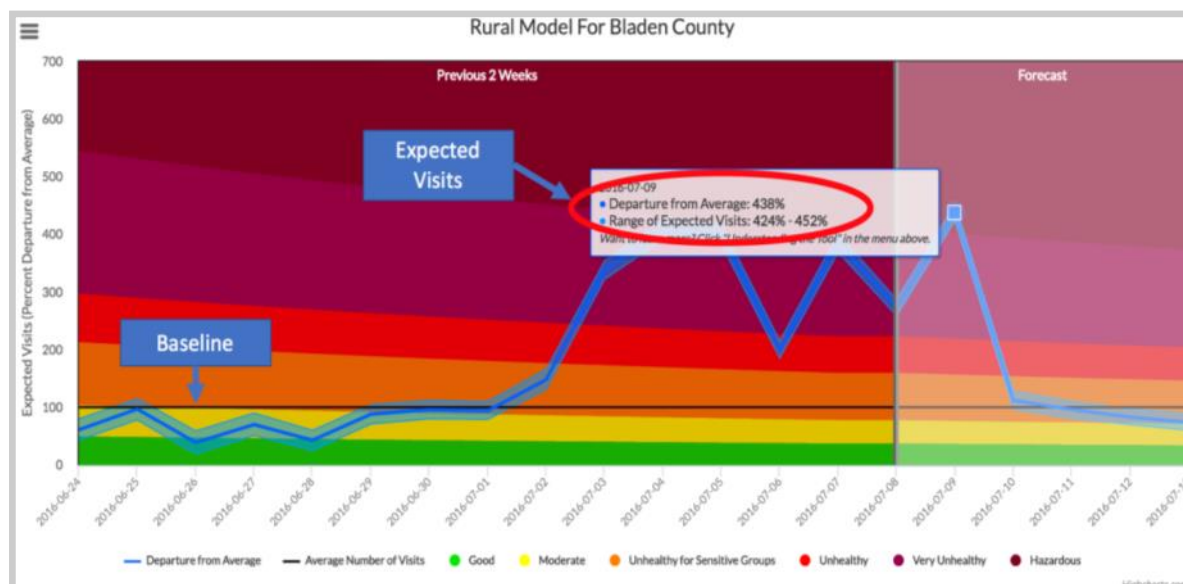


Figure 1. Heat Health Vulnerability Tool. ***The North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) is an advanced, statewide public health surveillance system. NC DETECT is funded with federal funds by North Carolina Division of Public Health (NC DPH), Public Health Emergency Preparedness Grant (PHEP), and managed through a collaboration between NC DPH and the University of North Carolina at Chapel Hill Department of Emergency Medicine's Carolina Center for Health Informatics (UNC CCHI). The NC DETECT Data Oversight Committee does not take responsibility for the scientific validity or accuracy of methodology, results, statistical analyses, or conclusions presented.***

Figure 1), which integrates data from the National Weather Service, along with indicators of community vulnerability in order to forecast days of high risk for heat-related illness in specific populations, such as children, the elderly and outdoor occupations. The site also includes an open access searchable database that allows users to access published studies, maps and visualization tools that addresses extreme weather events and its effects on the public.

The goal of the site is to share knowledge and skills, and collaborate to

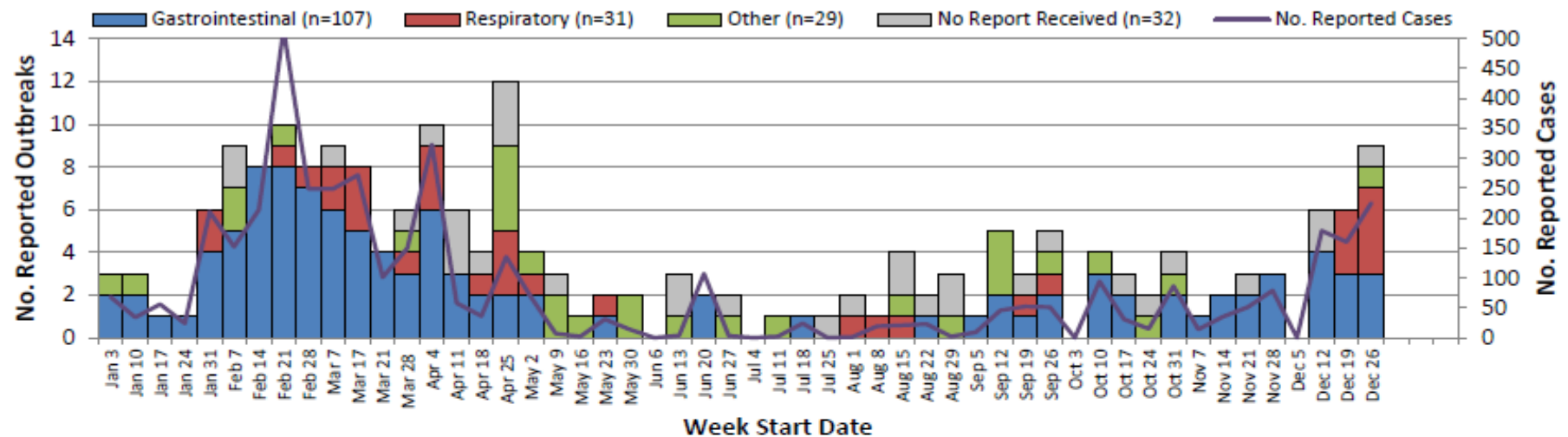
understand the different ways communities are vulnerable to extreme climate events and how they can act to increase their resilience to these events.

Access the website at: <http://convergence.unc.edu/>

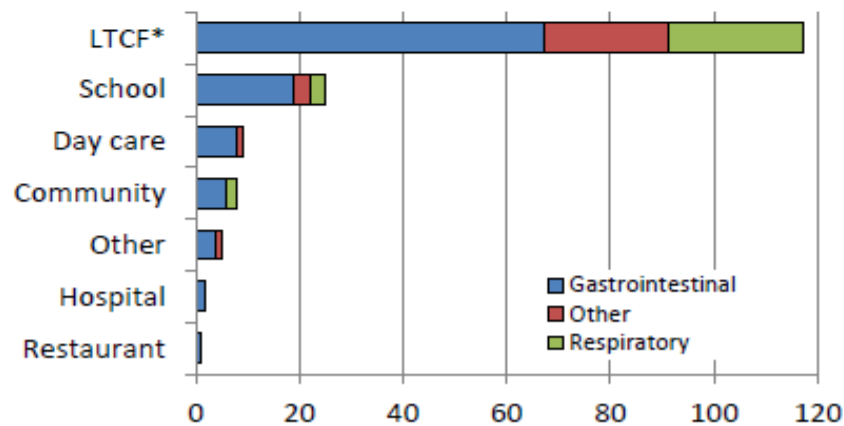
OUTBREAKS 2016

A total of **199** outbreaks were reported to the Communicable Disease Branch (CDB) from Jan. 1 - Dec. 31, 2016. Outbreak reports were received for 167 (84%) of these outbreaks. Data shown below represent information provided through outbreak reports, unless otherwise noted. Of those with reports received, **4,302** outbreak-associated cases were identified in the 167 outbreaks: 3655 (85%) from gastrointestinal illness (GI), 440 (10%) from respiratory illness, and 207 (5%) from other types. An average of 34 cases were identified in each GI outbreak (range three to 202), 14 in each respiratory (range one to 89) and seven in each other type (range two to 18).

Number of Outbreaks Reported to the CDB by Week of Report and Outbreak Type

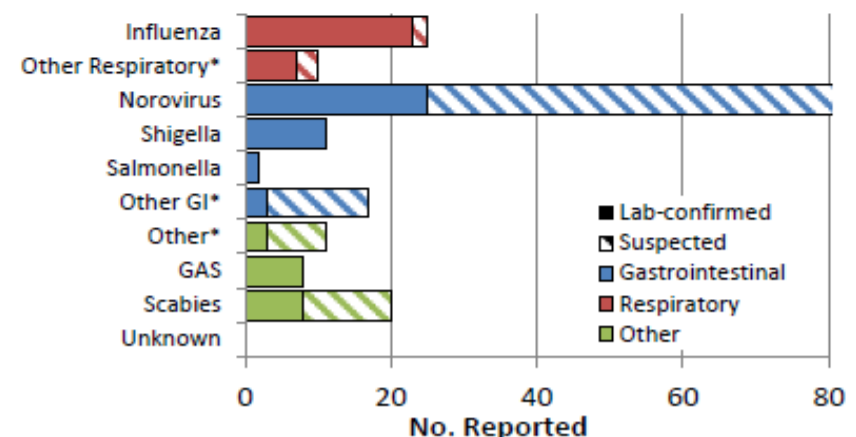


Setting



*Includes nursing homes, skilled nursing facilities, and assisted living facilities

Etiology (n=199)



* Other Lab-confirmed: GI - Cryptosporidium; Respiratory - Legionella, Measles, Mumps, Pertussis, Parainfluenza; Other - Varicella, CRE, Acinetobacter

Employees of the Quarter (Winter): *Nicole Beckwith*

For the past four years, Nicole Beckwith has served as the Coordinator for the CAPUS award (Care and Prevention in the US), which is focused on overcoming the social and structural barriers to care for minority people living with HIV. As part of this effort, Nicole and her team have created a cutting edge training curriculum in culturally competent care (C3) that digs deep into the stigma and prejudice that still exists for gay, transgender and minority persons accessing care in many areas of the state. In addition, she identified a powerful training in Undoing Racism and partnered with CAPUS Louisiana to integrate it into our own training once C3 was completed.

Nicole's efforts to create a Men's Clinic in Raleigh that serves people living with HIV (PLWH) who are men of color in a sensitive and accepting way has been challenging, and at times appeared to be impossible. She continued to fight for this clinic, gained support for the doctor providing the care, advocated strongly with the center's CFO for a Coordinator on-site and finally even achieved an agreement for the clinic to facilitate PrEP. This was a victory that was both hard-fought and critically important in keeping HIV negative people negative.

Nicole recognized the importance of providing people of color with the opportunity to tell their own stories. Toward that end, she actively recruited agencies to support the creation of a film about the black experience of HIV, sexual orientation and family. Written, filmed and produced by a private individual and his team of actors, Nicole provided her grandmother's home, and ongoing meals and support to complete the project. In fact, Nicole has proven that in order to truly address people where they are in living with HIV, you must create a family. She has drawn her parents into this effort; she has created opportunities for music, dance, spoken word and healing; she and her family, work team and volunteers provide meals, retreats and opportunities to both process the issues of living with HIV, as well as plan for interventions, referrals and linkages to care. I have never known a staff person to work as hard or take her work as personally as Nicole does.

Employees of the Quarter (Spring): *Keith Roland and Terri Arrington*

Keith Rowland and Terri Arrington have distinguished themselves in responding to two recent public health incidents of concern and in doing so, set an example for a new model of response within North Carolina Public Health Preparedness and Response. In one response to a petroleum release into a river that provided drinking water to a North Carolina town, Keith Rowland and Terri Arrington were instrumental in on-scene coordination and

coordinating the decision-making process to determine the eventual public health course of action. Their actions led to the Local Health Director and Local Authorities decision that protected hundreds of people.

The duo was also involved in the Western North Carolina wildfire response by providing on-scene coordination with local, state and federal authorities. They directly assisted the affected county Local Health Directors, and acted as liaisons

between state and local public health jurisdictions. Their dedication and innovation truly reflects great credit upon themselves, the branch, section and division.

Additionally, their service is exemplary, and we frequently hear from Local Health Departments and other response partners positive and glowing complements.

Their innovative response technique of using two skillsets in a response set an example for branch operations to pursue as a model. Their leadership, teamwork and sense of urgency led to successful outcomes in two public health responses affecting hundreds if not thousands of North Carolina residents.





Artwork submitted by Seven Mitchell of Raleigh, NC. Winner of the 2016 NC Get Smart Kids Artwork Competition

Just because you are sick does not mean you need antibiotics.



- Flu Checklist:**
- ☒ Thermometer?
 - ☒ Glass of water?
 - ☒ Antibiotics?



I got sick/flu in kindergarten!
and missed my class field trip!

Antibiotics do not treat the flu. Get smart about antibiotics.



By keeping your hands clean, you get rid of germs that can make you or others sick.

2016 NC Get Smart Art Contest

The NC Get Smart Campaign celebrated Get Smart Week 2016 by hosting a children's artwork competition. Get Smart Week is a national, annual observance intended to engage healthcare providers, educational systems, and the general public about antibiotic stewardship in the outpatient, inpatient and animal health settings. Children who participated in the artwork competition created drawings and comic strips to address healthy living and appropriate antibiotic use. Out of 80 submissions from children in pre-kindergarten to 8th grade, six winners were selected and their submissions were used to create official posters for the NC Get Smart Campaign. The posters may be displayed in doctor's offices, urgent cares and school health offices across the state, and may also be viewed on our campaign [webpage](#). The NC Get Smart Campaign will host another children's artwork competition beginning this fall. To participate in this year's competition or to order posters, email [Kristin Pridgen](#), NC Get Smart Campaign Coordinator.

NEWS and NOTES

Epi Section updates from around the State

AIDS Drug Assistance Program (ADAP) Achieves Milestone

By Amanda Greene, MPH

The National HIV/AIDS Strategy (NHAS) goals for 2020 include reducing new HIV infections, increasing access to care and improving health outcomes, reducing HIV-related health disparities, and achieving a more coordinated national response to the HIV epidemic. The North Carolina AIDS Drug Assistance Program (ADAP) plays an important role in meeting these objectives. NC ADAP is comprised of three sub-programs: the ADAP Pharmacy Program (APP), State Pharmaceutical Assistance Program (SPAP) and the Insurance Copay Assistance Program (ICAP). These sub-programs provide essential medications for low-income, underinsured and uninsured people living with HIV (PLWH) in North Carolina. By covering the costs of HIV treatment and other comorbidities, ADAP is directly linked to achieving viral suppression goals.

As of March 31, 2017, 8,260 clients enrolled in one of ADAP's sub-programs. Of those, 1,473 clients enrolled in ADAP for the first time in North Carolina. Using data from The North Carolina Engagement in Care and HIV Outreach project (ECHO), ADAP's overall viral suppression rate surpassed the NHAS 2020 goal of 80 percent. 6,310 (84%) of APP clients, 1,691 (93%) of SPAP and 258 (93%) of ICAP clients have achieved viral suppression, compared to the overall state's 59 percent viral suppression rate.

ADAP will continue to improve health outcomes for PLWH. To further meet the objectives of NHAS 2020, future ADAP goals include adding more medications to the ADAP formulary, including Hepatitis C treatment; implement a premium assistance program and improve the client application process.

2017 CD Conference Award Winners



Spirit Awards:

Mel Messer, Franklin County
Lisa Daniels, Greene County
Tracy Jones, Robeson County
Sue Ellen Morrison, Buncombe County

PHE Recognition Award:

David Buhner MD, Mission Health System

Surveillance and Investigation Awards:

Catawba and Guilford County Health Departments

CD Branch Award:

Dr. Marianna Daly, Madison County

Mighty Oak Award:

Ramona Bowsher, Hertford County
Bill Smith, Robeson County

NEWS and NOTES

Epi Section updates from around the State

EIS Officer receives prestigious award



Dr. Jess Rinsky, a CDC Epidemic Intelligence Service (EIS) Officer assigned to the North Carolina Division of Public Health, was recently awarded the Mitch Singal Excellence in Occupational and Environmental Health Award. This award is given by CDC each year to recognize one current EIS Officer whose work best exemplifies the effective application of

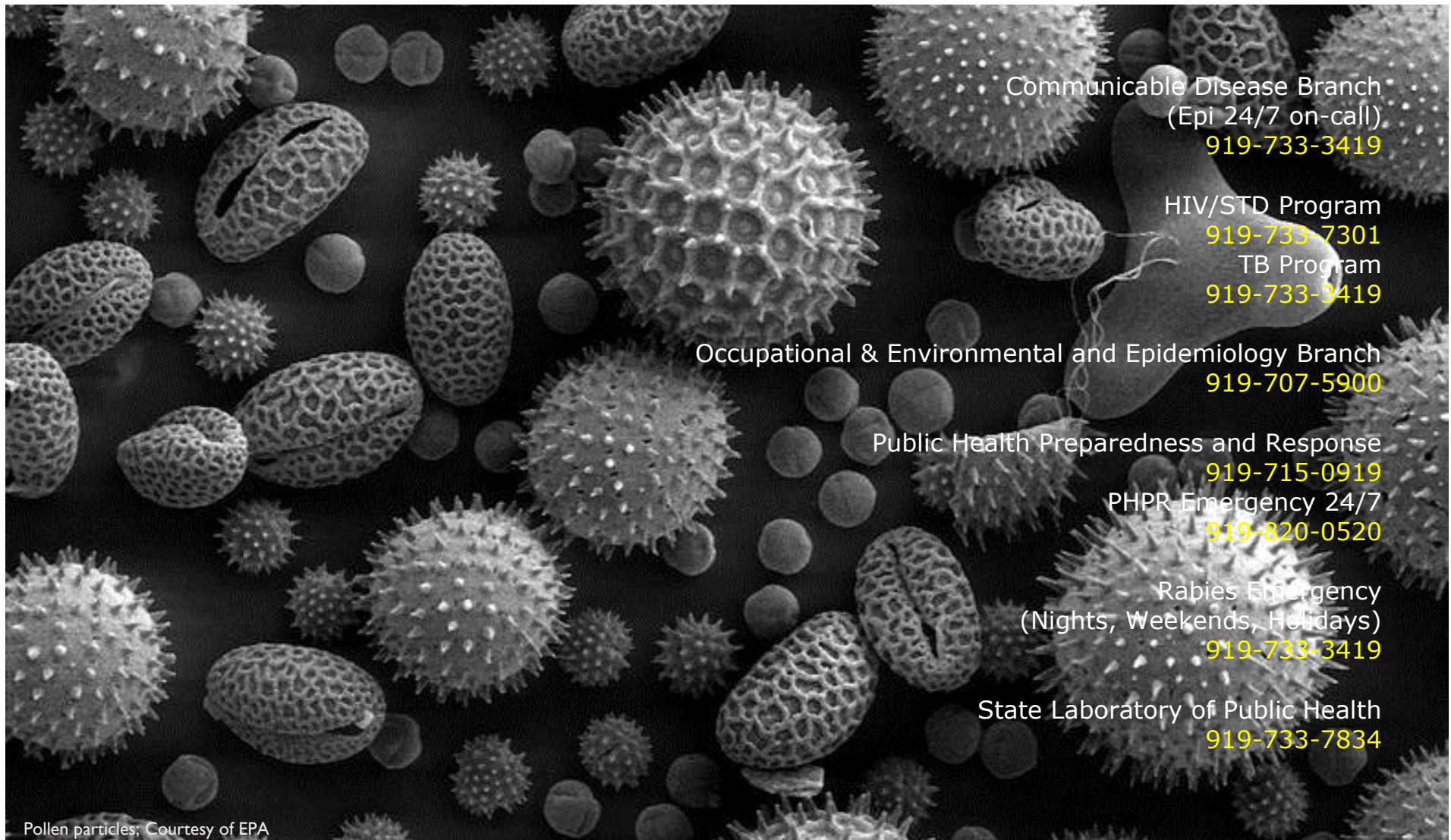
public health epidemiology to an investigation in the area of occupational or environmental health. This award was especially significant for Dr. Rinsky, since the award's namesake was a close friend of her family.

This award was given based on an investigation into occupational and take-home lead exposure associated with a lead oxide manufacturing plant. The investigation began in May 2016, when statewide surveillance data revealed elevated blood lead levels in employees at the plant and in their children. Jess led a team of state and local public health partners working to identify and address risk factors for lead exposure among employees and their families. The investigation served as a great example of a working collaboration between a facility and public health to address an occupational and community public health problem.

Re-engaging Epi-Teams—Preliminary Findings

By Charles Reed and Aaron Fleischauer, PhD, MSPH

The concept of local epi teams was formulated in 2002 during the early roll-out of the Public Health Emergency Preparedness Cooperative Agreement. In 2017, the Epi Section surveyed local health departments regarding current capacity, resources, and potential training needs of their Epi teams. Survey data were procured from responses to a fourteen-question survey distributed to local health departments in April 2017. All 85 LHDs (100%), responded to the survey. Preliminary results show that Epi Teams continue to be effective in supporting a local response. LHDs indicated that their teams meet regularly (80% of LHDs) and are ready to coordinate responses to outbreaks (91%) or non-infectious disease incidents (72%). These teams are usually composed of a preparedness coordinator, CD nurse, environmental health professional, health educator, health director, and clinic and administration staff. Since 2002, most (82%) LHDs have activated their Epi team at least once during a response, which included local communicable disease outbreaks (64% of incidents), Ebola, hurricanes and rabies exposures among other events. A few gaps in Epi team capacities were self-identified. Most commonly, LHDs reported difficulties with scheduling routine Epi Team meetings, structural organization and role and responsibilities, internal and external communication, and training needs. LHDs were also prompted to identify what trainings would strengthen their Epi teams. Scenario-based planning and response trainings including chemical responses (39%) and guidance on how to organize the epi team (29%) were the most frequently identified training gaps. Next steps will involve LHD input in the development of Epi Team guidance and training with the intent to roll out Epi Team-focused training workshop in early 2018.



Pollen particles; Courtesy of EPA

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